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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,188	09/08/2003	Christian Kurt Bottger	116998	8413
25944	7590	10/19/2005	EXAMINER	
OLIFF & BERRIDGE, PLC			CAMERON, ERMA C	
P.O. BOX 19928			ART UNIT	PAPER NUMBER
ALEXANDRIA, VA 22320			1762	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/656,188	BOTTGER ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Erma Cameron	1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 18 and 19 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-15, 20 and 21 is/are rejected.
- 7) Claim(s) 16 and 17 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner. \_\_\_\_\_
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. <u>8/24/2005</u> .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____.

## **DETAILED ACTION**

### ***Response to Amendment***

### ***Election/Restrictions***

1. Claims 18-19 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1762

3. The rejection of Claims 5-7 under 35 U.S.C. 112, second paragraph, is withdrawn because of the amendment filed 9/7/2005.

***Claim Rejections - 35 USC § 112***

4. Claims 20 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 20 and 21 contain new matter:

- a) Claim 20: the examiner disagrees that [0026] supports claim 20. “Only” does not appear in this paragraph. And nowhere in the specification as filed does the limitation of “fabric... subjected ONLY to heat treatment” appear.
- b) Claim 21: the examiner disagrees that [0027] supports claim 21. The expression “consists essentially of a non-composite network” does not appear in this paragraph. Nor does the expression occur anywhere else in the specification as filed.

5. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described

Art Unit: 1762

in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

“At least two” (fluoroacrylate polymers) appears to be new matter. The examiner cannot find where in the specification as filed “at least two fluoroacrylate polymers” is described.

***Information Disclosure Statement***

6. The IDS of 11/21/2003 has been considered and initialed. The references that are lined thru are references that appeared on the 892 form of the first office action of 6/7/2005. The IDS of 9/7/2005 has been considered. All references have been lined thru as having appeared elsewhere previously.

***Interview Summary***

7. The interview summary of 8/24/2005 has been corrected to show that it was the limitations of claims 16 and 17 that were discussed, and not the limitations of claims 15 and 16. A corrected version is supplied with this office action.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 3-4, 7-8 and 14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by WO 89/06190.

‘190 teaches applying a fluoroelastomer (16:28) in aqueous emulsion (20:2-17) to an aramid fiber that may be poly(phenylene terephthalamide) (8:14), which is then formed into for instance a plain woven fabric (15:3-15) and heat treated (28:35-29:17), to make a ballistic cloth. The emulsion may contain lubricant or other materials (22:8-17). The fluoroelastomer is inherently water-repellent.

‘190 teaches that coating the fabric, rather than the fiber results in an inferior product ballistically (see example 3).

The applicant has argued in the 9/7/2005 amendment that '190 uses heat and pressure to form a composite and does not suggest a step of heat treating the fabric. The examiner disagrees. The heat treatment of '190 inherently heats the fabric as well as the fluoroelastomer material around it.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 89/06190 taken in view of (Kwolek) 3671542.

'190 is applied here for the reasons given above.

'190 fails to teach that the aramid yarn is provided by a spinning process from a wash bath.

'542 teaches that poly (p-phenylene terephthalamide is prepared by a spinning process into a coagulating bath, followed by a wash bath and drying (see Example 1).

It would have been obvious to one of ordinary skill in the art to have employed a conventional process such as the one taught by '542 to make the aramid yarn of '190.

Art Unit: 1762

The applicant has argued that '542 does not remedy the deficiencies of '190. It is the examiner's position that '542 is not meant to remedy '190, but merely to bring in a spinning process for forming yarn.

12. Claims 6, 9-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 89/06190.

'190 is applied here for the reasons given above.

'190 teaches that the coating is applied by a device depicted in figures 14 and 15 (see Example 1), which involves rollers. It would have been obvious to one of ordinary skill in the art to have substituted any conventional coating apparatus for the apparatus of '190 with the reasoned expectation of success.

'190 appears to teach that the coating is applied at RT, which would be encompassed by the 15-35 C claimed by applicant.

'190 teaches that after the coating is applied and the fabric formed, heat treatment of 124 C is carried out (see Example 1). This T overlaps with applicant's claimed range.

In light of applicant's arguments in the 9/7/2005 amendment, claims 16 and 17 are now objected to as being dependent on a rejected claim.

Art Unit: 1762

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 89/06190 taken in view of WO 92/01108 or Jakob et al.

‘190 is applied here for the reasons given above.

‘190 fails to teach applying a fluoroacrylated to the aramid fiber.

‘108 teaches that applying a fluorinated methacrylate (a homologue of an acrylated) to an aramid fiber improves “certain physical and chemical properties of the fiber” (page 1-2) such as hydrolytic resistance.

Jakob et al teaches that OLEOPHOBOL fluoropolymer, which is one of the fluoro acrylates used by applicant, is especially preferred to treat aramid fibers, resulting in a high degree of wet ballistics protection (see Abstract and full text).

It would have been obvious to one of ordinary skill in the art to have used the fluorinated methacrylate of ‘108 or the OLEOPHOBOL of Jakob in the ‘190 process because of the teaching of each reference of the advantages of its particular treatment of aramid fiber.

The applicant has argued that neither reference teaches the entire process. It is the examiner’s position that either of the two references used in combination with ‘190 teach the use of a fluoroacrylate as a water-proofing material, to be combined with the ‘190 process.

#### *Allowable Subject Matter*

14. Claims 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erma Cameron whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

Art Unit: 1762

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Erma Cameron*  
ERMA CAMERON  
PRIMARY EXAMINER

Erma Cameron  
Primary Examiner  
Art Unit 1762

October 17, 2005